

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Currently Amended) The surgical operation apparatus according to claim 27, wherein the surgical instrument includes a probe that transmits the electrical energy from the energy release unit to a biomedical tissue of a body to be operated.

4. (Previously Presented) The surgical operation apparatus according to claim 27, further comprising a latch that fixes the first connector on the second connector.

5. (Previously Presented) The surgical operation apparatus according to claim 27, further comprising:

a first magnetism generation unit that is provided in the first connector and that generates a first magnetism; and

a second magnetism generation unit that is provided in the second connector and that generates a second magnetism that attracts the first magnetism.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) The surgical operation apparatus according to claim 27, wherein the surgical instrument includes an ultrasonic vibrator that generates an ultrasonic vibration according to the electrical energy received by the energy receiving unit; and an ultrasonic vibration treatment unit that is vibrated by the ultrasonic vibration.
9. (Currently Amended) The surgical operation apparatus according to claim 27, wherein the surgical instrument includes a treatment current generation unit that generates a high-frequency current for treatment according to the electrical energy received by the energy receiving unit; and a treatment electrode through which the current flows, the treatment electrode performing a high-frequency treatment on a body to be operated based on the current.
10. (Canceled)
11. (Previously Presented) The surgical operation apparatus according to claim 27, wherein the surgical instrument is one of a laser scalpel, a microwave scalpel, a thermal scalpel, and an electric drill.
12. (Currently Amended) The surgical operation apparatus according to claim 27, further comprising:
- a remote operation unit that performs a remote operation; and
- a surgical operation manipulator that includes an arm that moves the surgical instrument to operate a body with the surgical instrument according to a command from the remote operation unit, wherein
- ~~the energy transmission cable is disposed on the surgical operation manipulator, and the first connector is disposed inside the arm.~~

13. (Currently Amended) The surgical operation apparatus according to claim 12, wherein the surgical instrument includes a probe that transmits the electrical energy from the energy release unit to a biomedical tissue of a body to be operated.

14. (Original) The surgical operation apparatus according to claim 12, further comprising:

a first magnetism generation unit that is provided in the first connector and that generates a first magnetism;

a second magnetism generation unit that is provided in the second connector and that generates a second magnetism that attracts the first magnetism; and

a magnetism generation control unit that controls the first magnetism generated in the first magnetism generation unit and the second magnetism generated in the second magnetism generation unit.

15. (Canceled)

16. (Canceled)

17. (Currently Amended) The surgical operation apparatus according to claim 12, wherein the surgical instrument includes an ultrasonic vibrator that generates an ultrasonic vibration according to the electrical energy received by the energy receiving unit; and an ultrasonic vibration treatment unit that is vibrated by the ultrasonic vibration.

18. (Currently Amended) The surgical operation apparatus according to claim 12, wherein the surgical instrument includes a treatment current generation unit that generates a high-frequency current for treatment according to the electrical energy received by the energy receiving unit; and a treatment electrode through which the current flows, the treatment electrode performing a high-frequency treatment on a body to be operated based on the current.

19. (Canceled)
20. (Original) The surgical operation apparatus according to claim 12, wherein the surgical instrument is one of a laser scalpel, a microwave scalpel, a thermal scalpel, and an electric drill.
21. (Currently Amended) A method of controlling a surgical operation apparatus that includes a first connector that ~~releases converts electrical~~ energy generated by a drive device into light energy and releases the light energy, a second connector that receives the light energy without mechanical contact and converts the light energy into electrical energy, and a surgical instrument provided on the second connector, the method comprising:
- reading information of the surgical instrument from an identification information storage unit provided in the second connector by using a first information exchange functioning unit provided in the first connector; and
- setting a drive state of the drive device based on the information;
- accepting a command for generation of energy by the drive device; and
- disabling generation of the electrical energy in the drive device regardless of the command for generation of energy until the setting completes.
22. (Original) The method according to claim 21, further comprising detecting interconnection between the first connector and the second connector.
23. (Canceled)

24. (Previously Presented) The method according to claim 21, further comprising:

detecting drive information of the drive device;

transmitting the drive information through the first information exchange functioning unit;

receiving the drive information transmitted, by a second information exchange functioning unit provided in the second connector; and

storing the drive information received in the identification information storage unit.

25. (Currently Amended) The method according to claim 21, further comprising selecting

~~wherein the surgical instrument is selected~~ from a plurality of surgical instruments.

26. (Currently Amended) The method according to claim [[21]] 25, wherein the surgical instrument is one of a laser scalpel, a microwave scalpel, a thermal scalpel, and an electric drill.

27. (Currently Amended) A surgical operation apparatus comprising:

a drive device that generates [[an]] electrical energy for surgical treatment, the drive device including a first connector to transmit the generated electrical energy;

a surgical instrument that includes an operation functioning unit which functions based on the electrical energy generated by the drive device, the surgical instrument including a second connector which is detachable from the first connector;

a switch which provides a command for generation of energy by the drive device according to a manipulation;

an energy release unit that is disposed inside the first connector ~~and releases for~~ converting the electrical energy generated by the drive device into light energy, and releases the light energy out of the first connector;

an energy receiving unit that is disposed inside the second connector for receiving and which receives the light energy released from the energy unit without mechanical contact with the energy release unit, and converting the received light energy into electrical energy;

an identification information storage unit that stores identification information of the surgical instrument;

an information exchange unit that reads out information stored in the identification information storage unit according to a connection between the first connector and the second connector; and

a control unit that changes a setting for the generation by the drive device based on the information read out by the information exchange unit, and disables disable the generation of the electrical energy in the drive device regardless of the command for the generation of energy until the information exchange unit completes reading out the information.

28. (Currently Amended) The surgical operation apparatus according to claim 27, wherein the identification information storage unit is disposed inside the second connector, and the information exchange unit further comprises:

a first information exchange functioning unit that outputs a signal for one of reading and storing of information in the identification information storage unit, the first information exchange functioning unit being disposed inside the first connector; and

a second information exchange functioning unit that either stores the information in the identification information storage unit or reads the information from the identification information storage unit, according to the signal output from the first information exchange functioning unit, the second information exchange functioning unit being disposed inside the second connector.

29. (Currently Amended) The surgical operation apparatus according to claim 27, wherein the control unit controls generation of the electrical energy with a drive parameter depending on characteristics of the surgical instrument based on the identification information read by the information exchange unit.

30. (Currently Amended) The surgical operation apparatus according to claim 12, wherein the identification information storage unit is disposed inside the second connector, and the information exchange unit further comprises:

a first information exchange functioning unit that outputs a signal for one of reading and storing of information in the identification information storage unit, the first information exchange functioning unit being disposed inside the first connector ~~and that~~; and

a second information exchange functioning unit that either stores the information in the identification information storage unit or reads the information from the identification information storage unit, according to the signal output from the first information exchange functioning unit, the second information exchange functioning unit being disposed inside the second connector.

31. (Currently Amended) The surgical operation apparatus according to claim 12, wherein the control unit controls generation of the electrical energy with a drive parameter depending on characteristics of the surgical instrument based on the identification information read by the information exchange unit.

32. (Previously Presented) The surgical operation apparatus according to claim 27, wherein the control unit controls so that information about a condition of use of the surgical instrument is stored in the identification information storage unit via the information exchange unit according to the manipulation of the switch.